ABSTRACT

A microarray containing components of cell membranes and a high-throughput method for using the microarray to detect toxins and screen for other biological or chemical compounds that may block the binding of toxin molecules to targets is provided. The microarray according to the present invention provides an attractive platform for efficient study of fundamental aspects of molecular recognition at the cell surface. Specific binding pattern of a given toxin to a set of different biological membrane probes in the microarray can be employed as a "signature" to identify and detect the presence of a toxin in a sample.